Amendments to the Claims:

Please amend the claims to read as follows:

1. (canceled)

2. (canceled)

3. (canceled)

4. (canceled)

5. (canceled)

6. (canceled)

7. (canceled)

8. (canceled)

9. (canceled)

10. (canceled)

11. (previously presented) A method as claimed in claim 34, wherein said step of transmitting comprises operating said data terminals to provide load sharing between said two routes.

12. (previously presented) A method as claimed in claim 34, further comprising maintaining the bandwidth allocated to said second route unchanged during the interruption of the first route.

13. (canceled)

14. (previously presented) A method as claimed in claim 11, wherein the step of switching the traffic is operating at a path sublayer of said transport network.

15. (previously presented) A method as claimed in claim 11, wherein the step of switching the traffic is operating at a line sublayer of said transport network, and bandwidth

allocated to the first route and bandwidth allocated to the second route are allocated from the protected and ET connections class, respectively.

16. (canceled)

17. (canceled)

18. (currently amended) An optical communication network for exchanging traffic between two data terminals connected at a respective end node, and recovering traffic in case of a fault at the physical layer, comprising:

an adaptive rate interface at each said end node for changing the transmit and receive rate of traffic from a fast rate to a slow rate during a protection switch and from the slow rate to the fast rate upon return to normal operation from the protection switch;

a link between said adaptive rate interfaces, the link including a working transmission facility for accommodating a traffic pipe of a first bandwidth (BW) corresponding to said fast rate during normal operation, and a protection transmission facility for accommodating a squeezed traffic pipe of a second bandwidth (BW) corresponding to said slow rate during the protection switch; and

protection switching means for detecting an interruption in a flow of traffic through said ~~traffic pipe~~ working transmission facility and for operating the protection switch in response to the interruption, so that the flow of traffic traversing said working transmission facility at the fast rate switches to and traverses said protection transmission facility at the slow rate.

19. (previously presented) A network as claimed in claim 18, wherein said protection switching means operate at a path sublayer.

20. (previously presented) A network claimed in 19, wherein said adaptive rate interface is provided in said data terminal and operates to automatically change the data rate of the received and transmitted traffic between said fast and slow rates, in response to a flow control parameter.

21. (previously presented) A network as claimed in claim 19, wherein said adaptive rate interface is provided in said data terminal and operates to change the data rate of the received and transmitted traffic between said fast and said slow rates in response to a rate change signal received from said protection switching means.

22. (previously presented) A network as claimed in claim 18, wherein said adaptive rate interface comprises:

a plurality of ports on said data terminal;

means for turning on and off each said port, for automatically changing the operation data rate of the received and transmitted traffic between said fast and said slow rate in response to a flow control parameter.

23. (previously presented) A network as claimed in claim 18, wherein said adaptive rate interface comprises:

a plurality of ports on said data terminal;

means for turning on and off each said port, for changing the operation data rate of the received and transmitted traffic between said fast and said slow rate in response to a rate change signal received from said protection switching means.

24. (original) A network as claimed in claim 18 wherein said adaptive rate interface comprises an Ethernet mapper connected between said data terminal and said node for changing the mapping of data packets between said fast and said slow rates.

25. (currently amended) A method of operating an adaptive rate interface connected between a data terminal and an optical communication network comprising:

exchanging traffic ~~of~~ at a first rate over a working route between said data terminal and said network in a normal state of operation;

transitioning from exchanging traffic ~~of~~ at the first rate over the working route to exchanging traffic ~~of~~ at a second rate slower than the first rate over a protection route between said data terminal and said network during a protection switching operation; and

transitioning from ~~said protection operation~~ exchanging traffic at said slower second rate to said normal state of operation during a recovery state of operation.

26. (original) A method as in claim 25, wherein said network is a SONET/SDH network, said first rate is a STS-N, and said second rate is a STS-M, where M<N.

27. (currently amended) A method as claimed in claim 26, wherein the step of transitioning from said normal state of operation to said protection switching operation begins on receipt of STS path AIS.

28. (currently amended) A method as claimed in claim 26, wherein the step of transitioning from said protection switching operation to said normal state of operation begins on receipt of a recovered path AIS.

29. (currently amended) A method as claimed in claim 26, further comprising transitioning from said protection switching operation to said recovery state of operation on receipt of an unequipped code on non-data field STSs.

30. (previously presented) A method as claimed in claim 26, further comprising transitioning from said recovery state of operation to said normal state of operation when no path conditions are detected in the incoming traffic.

31. (currently amended) A method as claimed in claim 26, further comprising transitioning from said recovery state of operation from said protection switching operation on receipt of path AIS of all said STS-M.

32. (canceled)

33. (canceled)

34. (previously presented) A method of providing traffic recovery in a transport network connecting two data terminals, comprising:

allocating a total bandwidth to traffic transmitted between the data terminals;

distributing the total bandwidth between a first unprotected route and a second unprotected route between the data terminals;

transmitting unprotected traffic over the first route at a first transmission rate and unprotected traffic over the second route at a second transmission rate during normal operation of the transport network;

detecting an interruption of the transmission of unprotected traffic over the first route; and

upon detection of the interruption, switching the unprotected traffic from being transmitted over the first route to being transmitted over the second route, wherein the switched traffic is transmitted over the second route at a slower transmission rate than the first transmission rate.

35. (canceled)

36. (previously presented) The method of claim 34, further comprising receiving during the interruption a flow control message used for adapting to the slower transmission rate of the traffic switched over the second route.